IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently amended): An apparatus for accelerating a destruction of a vortex formed at a rear of a wing of an aircraft by a merging of first and second co-rotating eddies, comprising:

a perturbation device disposed adjacent an area of creation of the first co-rotating eddy, the perturbation device being configured to generate a periodic perturbation having a wavelength capable of exciting at least one instability mode of the first co-rotating eddy.

Claim 2 (Original): The apparatus according to claim 1, wherein the perturbation device is disposed adjacent a flap of the aircraft.

Claim 3 (Currently amended): The apparatus according to claim 2, wherein the perturbation device comprises an unstreamed element.

Claim 4 (Currently amended): The apparatus according to claim 3, wherein the unstreamed element comprises a cylindrical ~~cross~~ section.

Claim 5 (Original): The apparatus according to claim 4, wherein the unstreamed element comprises a circular cross section.

Claim 6 (Original): The apparatus according to claim 4, wherein the unstreamed element comprises an elliptical cross section.

Claim 7 (Original): The apparatus according to claim 3, wherein the unstreamed element is configured to be extended from and retracted into one of the wing and the flap of the aircraft.

Claim 8 (Currently amended): The apparatus according to claim 2, wherein the perturbation device comprises a fluid jet.

Claim 9 (Original): The apparatus according to claim 8, wherein the fluid jet is disposed within one of the wing and the flap of the aircraft.

Claim 10 (Currently amended): An apparatus for accelerating a destruction of a vortex formed at a rear of a wing of an aircraft by a merging of first and second co-rotating eddies, comprising:

means for generating a periodic perturbation having a wavelength capable of exciting at least one instability mode of the first co-rotating eddy, the means for generating being disposed adjacent an area of creation of the first co-rotating eddy.

Claim 11 (Currently amended): The apparatus according to claim 10, wherein the ~~perturbation device~~ means for generating is disposed adjacent a flap of the aircraft.

Claim 12 (Currently amended): The apparatus according to claim 11, wherein the ~~device~~ means for generating comprises an unstreamed element.

Claim 13 (Original): The apparatus according to claim 12, wherein the unstreamed element is configured to be extended from and retracted into one of the wing and the flap of the aircraft.

Claim 14 (Currently amended): The apparatus according to claim 11, wherein the ~~device~~ means for generating comprises a fluid jet.

Claim 15 (Currently amended): The apparatus according to claim [[8]] 14, wherein the fluid jet is disposed within one of the wing and the flap of the aircraft.

Claim 16 (Currently amended): An apparatus for accelerating a destruction of first and second contra-rotating vortices formed at a rear of first and second wings of an aircraft, the first contra-rotating vortex being formed by a merging of first and second co-rotating eddies, and the second contra-rotating vortex being formed by a merging of third and fourth co-rotating eddies, the apparatus comprising:

a first perturbation device disposed adjacent an end of a first flap of the first wing ~~creating the first co-rotating eddy~~; and

a second perturbation device disposed adjacent an end of a second flap of the second wing ~~creating the third co-rotating eddy;~~ , wherein

the first and second perturbation devices are configured to generate periodic perturbations having wavelengths capable of exciting instability modes of the first and third co-rotating eddies, and

~~such that~~ diameters of the first and second contra-rotating vortices with excited instability modes are greater than a predetermined proportion of a distance between the first and second contra-rotating vortices.

Claim 17 (Currently amended): The apparatus according to claim 16, wherein the predetermined proportion is approximately 30% ~~first and second perturbation devices are configured to generate periodic perturbations having wavelengths capable of exciting instability modes of the first and third eddies, such that the diameters of the first and second vortices are greater than about 30% of the distance between the first and second vortices~~.

Claim 18 (New): The apparatus according to claim 1, wherein the periodic perturbation corresponds to a Benard-von Karman instability.

Claim 19 (New): The apparatus according to claim 1, wherein the periodic perturbation induces an increase in three-dimensional elliptic instabilities.

Claim 20 (New): The apparatus according to claim 1, wherein the instability mode is an internal instability mode of a core of the first co-rotating eddy.

Claim 21 (New): The apparatus according to claim 2, wherein the perturbation device has a diameter transverse with respect to a flow around the wing of the aircraft and the diameter depends on the wavelength of the periodic perturbation.

Claim 22 (New): The apparatus according to claim 3, wherein the unstreamed element has a diameter transverse with respect to a flow around the wing of the aircraft and the diameter depends on the wavelength of the periodic perturbation.

Claim 23 (New): The apparatus according to claim 9, wherein the fluid jet is emitted transversally to a flow around the wing of the aircraft and thus to a longitudinal axis of the first co-rotating eddy.

Claim 24 (New): The apparatus according to claim 10, wherein the periodic perturbation corresponds to a Benard-von Karman instability.

Claim 25 (New): The apparatus according to claim 10, wherein the periodic perturbation induces an increase in three-dimensional elliptic instabilities.

Claim 26 (New): The apparatus according to claim 14, wherein the fluid jet is emitted transversally to a flow around the wing of the aircraft and thus to a longitudinal axis of the first co-rotating eddy.

Claim 27 (New): The apparatus according to claim 16, wherein the periodic perturbations correspond to Benard-von Karman instabilities.

Claim 28 (New): The apparatus according to claim 16, wherein the periodic perturbations induce increases in core diameters of the co-rotating eddies.

Claim 29 (New): The apparatus according to claim 16, wherein the periodic perturbations induce increases in three-dimensional elliptic instabilities.

Claim 30 (New): The apparatus according to claim 16, wherein the instability mode to be excited is determined from sizes of cores of the eddies and ratios between the sizes of the cores of the eddies and a distance between the eddies.